

**ABSTRACT OF THE DISCLOSURE**

The present invention relates to a method for removing etching assist gas from a fabrication system used during defect repair of a photomask in the fabrication of an integrated circuit, including: (a) inspecting the photomask and detecting a defect, the defect in a defect region; and (b) repairing the defect, wherein an amount, effective for the purpose of styrene is added to the system. By the method of the present invention, the amount of gas remaining on the MOS film is reduced, resulting in less surface defects present on the photomask.